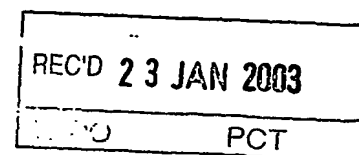


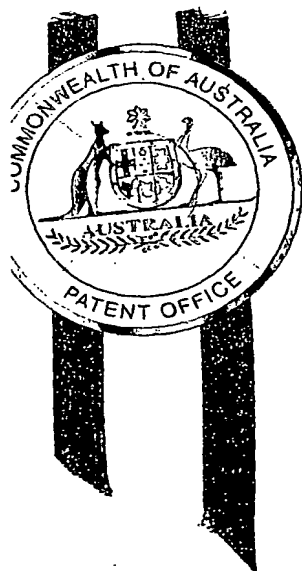


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I, JONNE YABSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PR 9745 for a patent by MIDAMARINE PTY LTD as filed on 24 December 2001.



WITNESS my hand this
Thirteenth day of January 2003

J R Yabsley

JONNE YABSLEY
TEAM LEADER EXAMINATION
SUPPORT AND SALES

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Midamarine Pty Ltd

AUSTRALIA
Patents Act 1990

PROVISIONAL SPECIFICATION

Invention Title: SURFCRAFT

This invention is described in the following statement:

The present invention relates to surfcraft. In particular the present invention relates to a craft for riding on the surface of the water. The craft of the present invention may be in the form of a bodyboard, a kneeboard, a wakeboard or the like. Such craft may be propelled by the motion of the waves or surf or may be towed behind a boat.

Buoyant boards have been utilised as surfcraft. Over the past 20 years bodyboards have developed from the original "boogie boards" and a variety of surfcraft such as bodyboards are currently available. Generally bodyboards, kneeboards or wakeboards are formed from panels of closed cell polymeric foam. Typically, such surfcraft are just over a metre in length and about half a metre in diameter. Generally, these surfcraft are awkward to store and to transport due to their size and shape.

Inflatable surfcraft have been produced and are generally similar in construction to inflatable beds. Such inflatable craft generally lack the necessary stiffness and hydrodynamic properties to provide an acceptable level of performance to make them feasible alternatives to surfcraft made out of rigid materials such as closed cell polymeric foam.

We have now found that by providing an inflatable bladder within an outer sleeve where the outer sleeve forms a top riding surface and a bottom planing surface it is possible to produce an inflatable surfcraft with improved hydrodynamic performance. According to the present invention there is provided a craft for supporting a rider on the water in the form of an elongate, substantially planar member having a top riding surface, a bottom, planing surface wherein said planar member comprises an inner inflatable bladder secured within an outer sleeve wherein said sleeve comprises the top riding surface supported on the inflatable bladder and the bottom, planing surface.

The inner inflatable bladder preferably includes an inflation valve that will permit the bladder to be readily inflated and deflated. The retractable valve may be configured to engage with a mechanical pump.

The inflatable bladder may preferably be constructed from any convenient material. For example, it is preferred that a heavy duty PVC such as 24 gauge PVC be used to form the inflatable bladder. The inflatable

bladder preferably includes valve for inflating and deflating the bladder. A variety of valves may be suitable. For example, a retractable valve is particularly preferred so that it does not protrude from the surfcraft. A vinyl stem retractable valve may be used.

5 Preferably the inflating valve is oversized for ready inflation.

It is preferred that the inner inflatable bladder be shaped substantially in conformity with the desired shape of the surfcraft although the outer sleeve may be used to constrain the inflatable bladder to a desired shape.

10 The inner inflatable bladder may be of ribbed construction so as to retain a planar shape. The inflatable bladder may also be seamed or bonded in other configurations whereby a relatively planar elongate bladder is produced once the bladder is inflated.

 The outer sleeve or cover may serve to constrain the inflatable
15 bladder to the desired shape. The outer sleeve has an upper riding surface and a lower planing surface. The upper riding surface and the lower planing surface may be joined directly or may be preferably joined by a side gusset.

 The outer sleeve may include a variety of optional features. For example a leash attachment may be provided on the nose of the surfcraft.
20 Preferably handles and knuckle guards may also be provided on the nose of the surfcraft. It is preferred that leash attachment, handles and knuckle guards be formed integrally with the outer sleeve. In a preferred configuration, a leash attachment, handles and knuckle guards are provided integrally on the outer sleeve at each corner of the nose of the surfcraft.

25 Preferably the outer sleeve is a sewn and laminated sheath made from a heavy-duty nylon fabric. An 840-denier nylon fabric is preferred. The outer sleeve may preferably include on the upper riding surface a panel on which a rider may be located. Preferably the panel may be formed from padded material and provide the rider with a degree of comfort and
30 protection. It is particularly preferred that the panel is formed from a neoprene material and act as a body protector.

 The upper surface may also include provision for the inflation valve of the inflatable bladder to be extended therethrough for ready access

for inflation and deflation without having to remove the bladder from the sleeve.

The leash attachment may be in the form of a tag attached to the outer cover or may be in the form an aperture extending through a handle.

- 5 Alternatively the leash attachment may be formed as an aperture through the outer sleeve.

The handle may be attached to the outer sleeve or be formed integrally therewith. The handle may also be attached to or formed integrally with the inner inflatable bladder and extend through the outer sleeve.

- 10 Typically the handle may be formed from closed cell polymeric foam.

The knuckle guard preferably extends from the handle and is formed from neoprene.

- The bottom, planing surface of the outer sleeve may be formed from heavy-duty nylon fabrics. In an alternative configuration the bottom, planing surface may include fins or other configurations adapted to provide improved hydrodynamic properties. In one alternative embodiment, the bottom, planing surface may include a rigid panel wherein said rigid panel may further include fins or the like.
- 15

- Preferably the tail of the bottom, planing surface includes a drainage port for allowing water to be removed from inside the outer sleeve. The drainage port may preferably be in the form of a nylon mesh. By providing a drainage port at the rear of the surfcraft, the forward movement of the surfcraft will insist in the draining of water from inside the outer sleeve. It is preferred that the drainage port extends across the width of the tail of the surfcraft.
- 20
- 25

Preferably the outer sleeve includes a closure system such as a Velcro closure to retain the inner inflatable bladder securely within the outer sleeve.

- Preferably the surfcraft of the present invention is substantially planar having a narrowed nose section and a tail in the form of a swallowtail or bat-wing.
- 30

Advantageously the surfcraft of the present invention may be deflated and compacted for storage and transport. In the embodiment where

the bottom, planing surface is of rigid material the surfcraft may be stacked in a deflated state. Alternatively where the bottom planing surface is of flexible material, such as heavy duty nylon or of a flexible, semi-rigid material, the surfcraft may be deflated and rolled up for storage and transport.

5 The present invention will now be described with reference to the following drawings. It will be appreciated that the accompanying drawings are provided for illustrative purposes and do not limit the scope of the invention disclosed herein.

10 Figure 1 shows a top plan view of the outer sleeve of a surfcraft of the present invention;

 Figure 2 shows a bottom plan view of the outer sleeve shown in Figure 1;

 Figure 3 shows a top plan view of the inflatable bladder of the surfcraft of the present invention;

15 Figure 4 shows a top view of a surfcraft of the present invention;

 Figure 5 shows a front view of the surfcraft shown in Figure 4;

 Figure 6 shows a rear view of the surfcraft shown in Figure 4;

 Figure 7 shows a bottom view of the surfcraft shown in Figure 4;

and

20 Figure 8 shows a side view of the surfcraft shown in Figure 4.

 The outer cover 2 of the surfcraft 1 shown in figure 1 has a top riding surface 3 on which is disposed a neoprene body protector panel 4. The tail section 15 of the top riding surface 3 is in the form of a bat-wing design. A foamed padded handle 5 is disposed on each corner of the nose section of the upper riding surface 3. Associated with the handles 5 are knuckle guards 6 formed of neoprene material. The handles 5 incorporate leash attachment apertures 7 to which a leash (not shown) may be affixed.

25 The top riding surface 3 includes an aperture through which the inflation valve 14 of the bladder (not shown) can be accessed. The outer sleeve 2 also includes a side gusset 12.

30 The outer cover 3 also includes a bottom planing surface 8 shown in Figure 2. At the tail of the outer sleeve is disposed a nylon draining mesh 11 to allow water to be removed from inside the outer sleeve 3. A

Velcro closure 10 is also disposed on the bottom planing surface 8. The handle 5, knuckle guard 6 and the leash attachment 7 can also be seen from the bottom view, as can the side gusset 12.

Figure 3 shows a bladder 21 substantially conforming to the shape of the outer sleeve shown in Figures 1 and 2. The bladder is retained in a substantially planar configuration by seams 22 that form ribs 20. The bladder 21 is provided with an inflation valve 14.

Figure 4 is a digital photograph of the surfcraft 1 shown in plan form in Figures 1 to 3. The outer cover 2 of surfcraft 1 has a neoprene body protector panel 4. The tail section 15 of the top riding surface 3 is in the form of a bat-wing design. A foamed padded handle 5 is disposed on each corner of the nose section of the surfcraft 1. The top riding surface 3 includes an aperture through which the inflation valve 14 of the bladder (not shown) can be accessed.

Figure 5 is a front view of surfcraft 1. The handles 5 can be seen at each corner. Figure 6 shows a rear view of surfcraft 1. The drainage mesh 11 is shown on the bottom planing surface 8.

Figure 7 shows the bottom view of surfcraft 1. Surfcraft 1 includes a bottom planing surface 8 shown in Figure 2. The handles 5 can also be seen from the bottom view. Figure 8 is a side view of surfcraft 1 and shows the side gusset 12.

It will be appreciated that the invention described above may be subject to improvements and modifications that will be apparent without departing from the spirit and scope of the invention described herein.

DATED this 24th day of December 2001

Midamarine Pty Ltd

By their Patent Attorneys

CULLEN & CO.

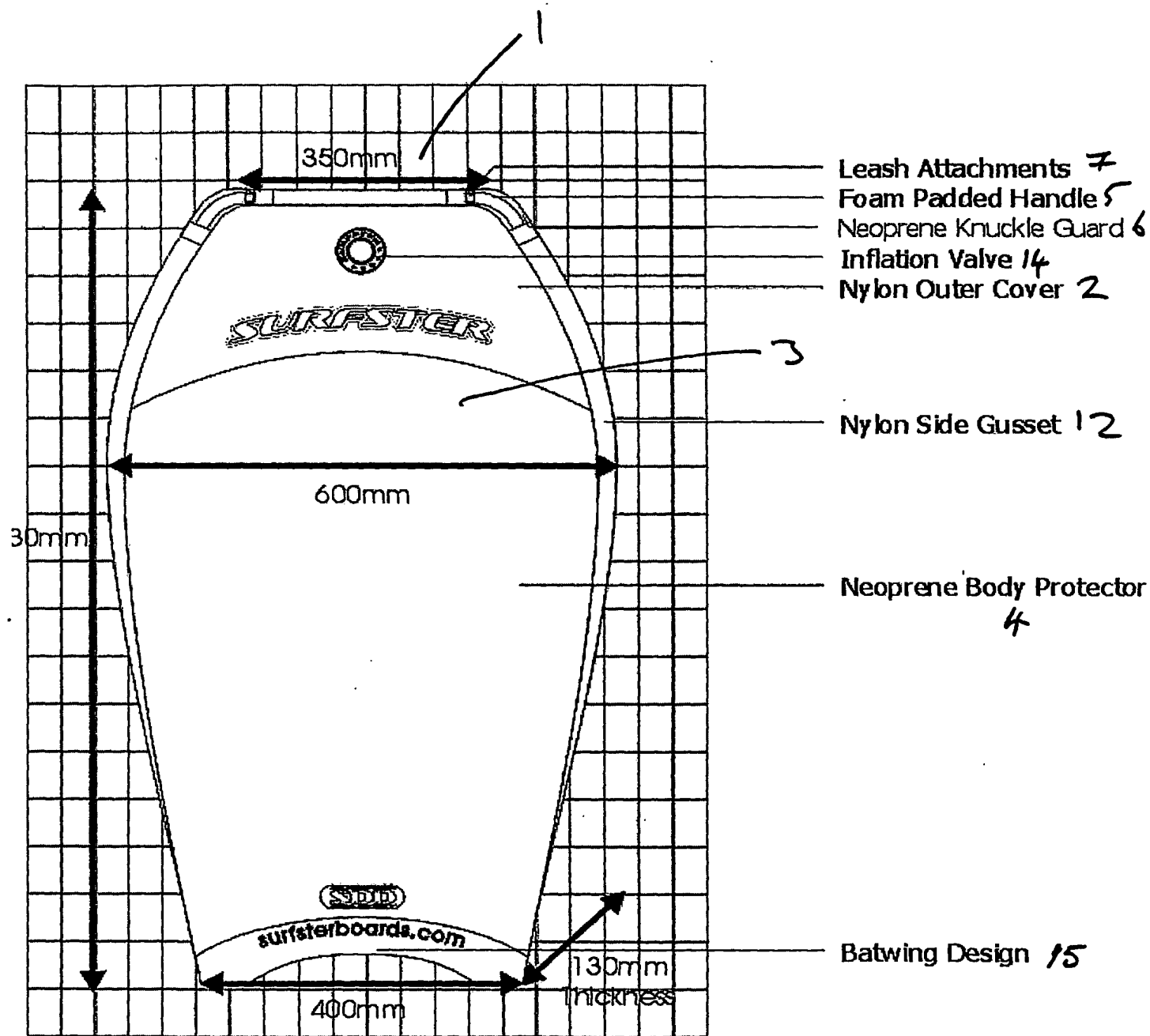
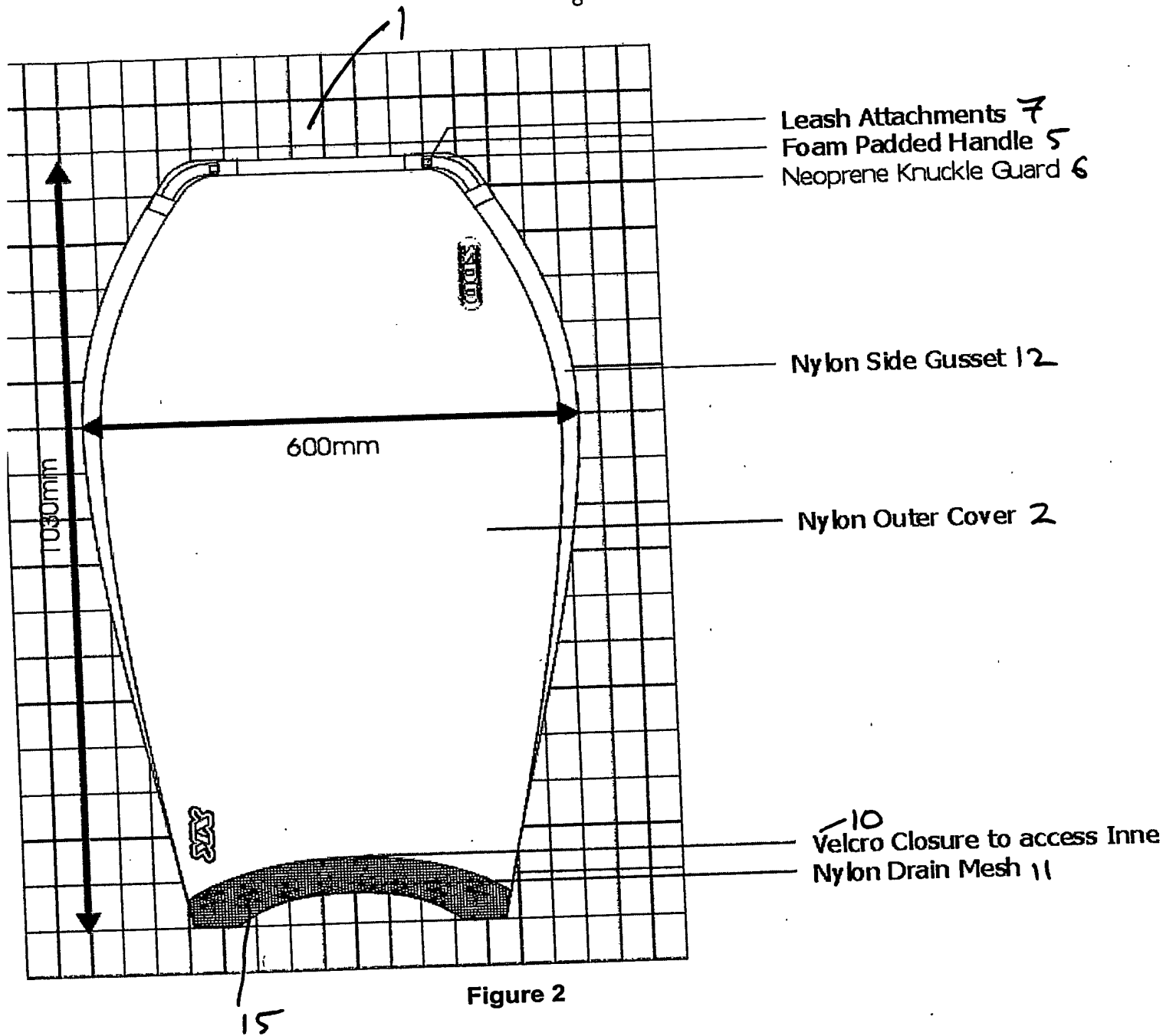


Figure 1



9

21

350mm

600mm

1030mm

Inflation Valve 14

Ribbed Vinyl Inner Tube

20

20

22

22

22

400mm

Figure 3

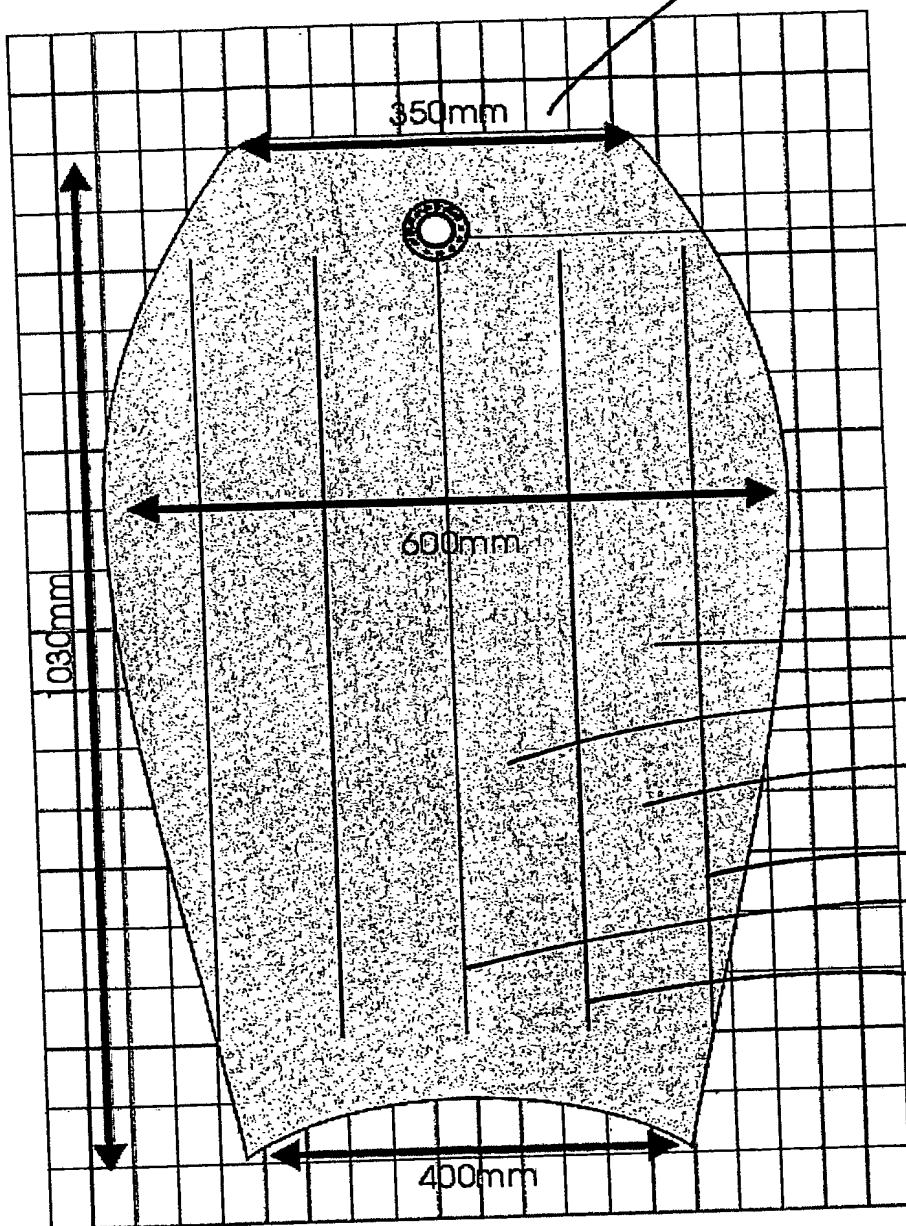




Figure 4

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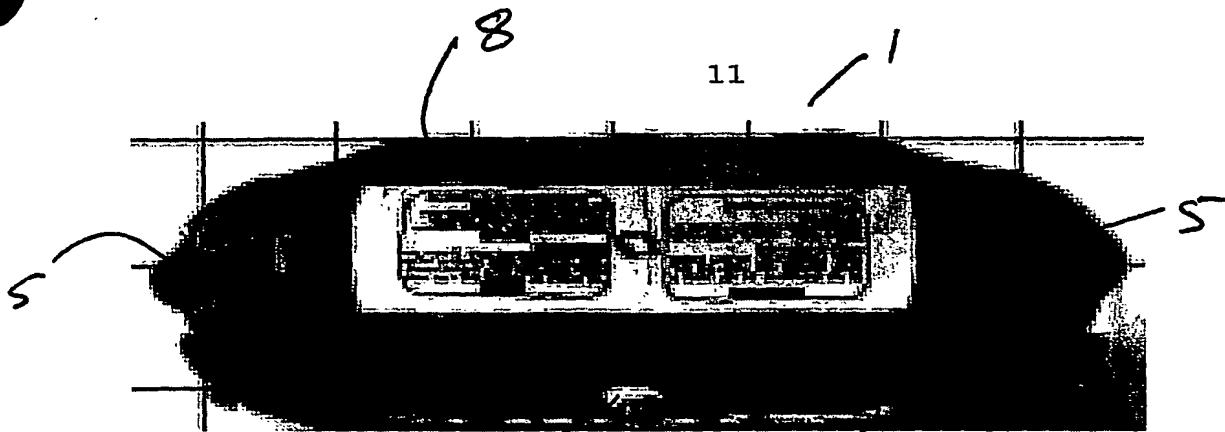


Figure 5



Figure 6

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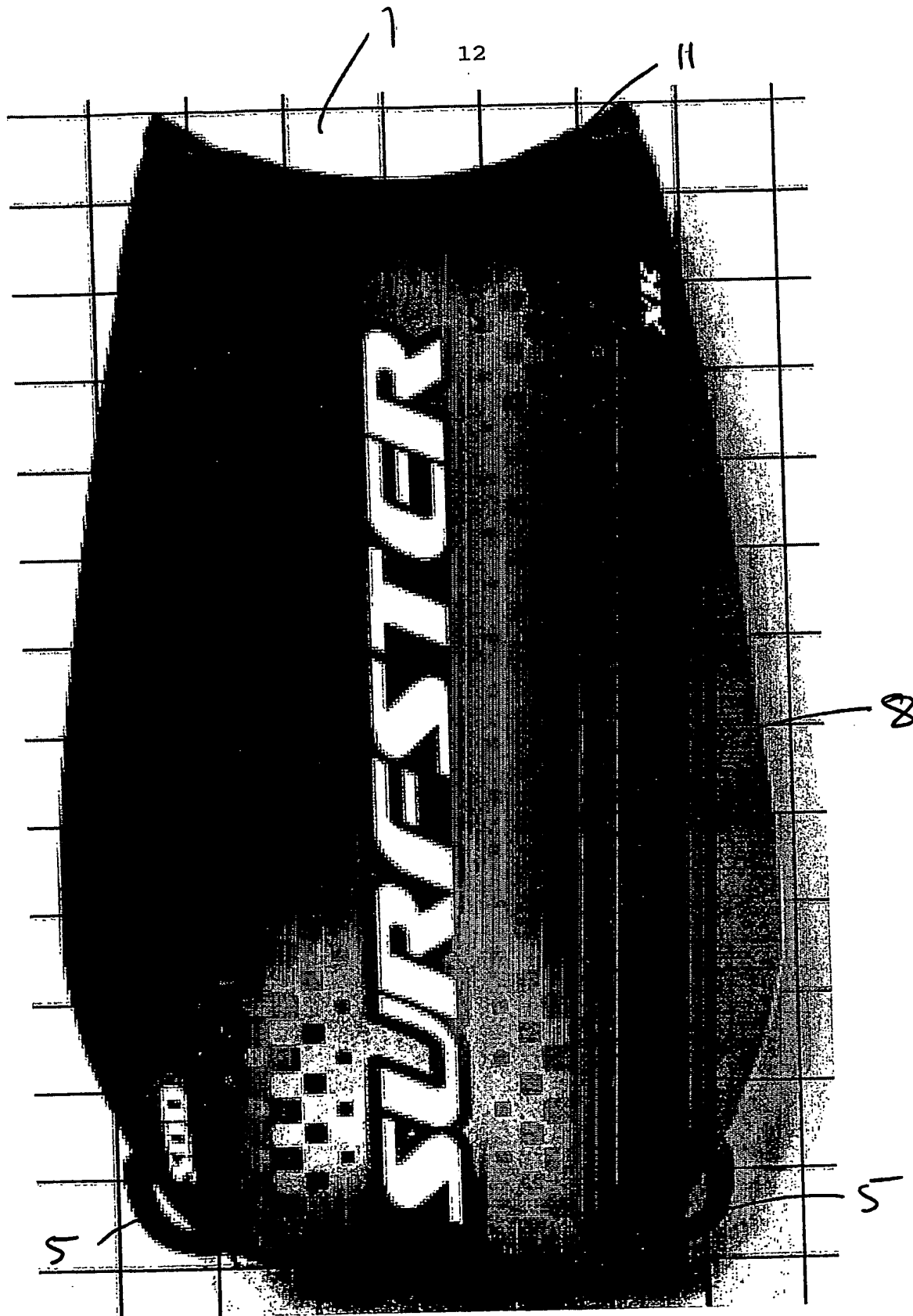


Figure 7

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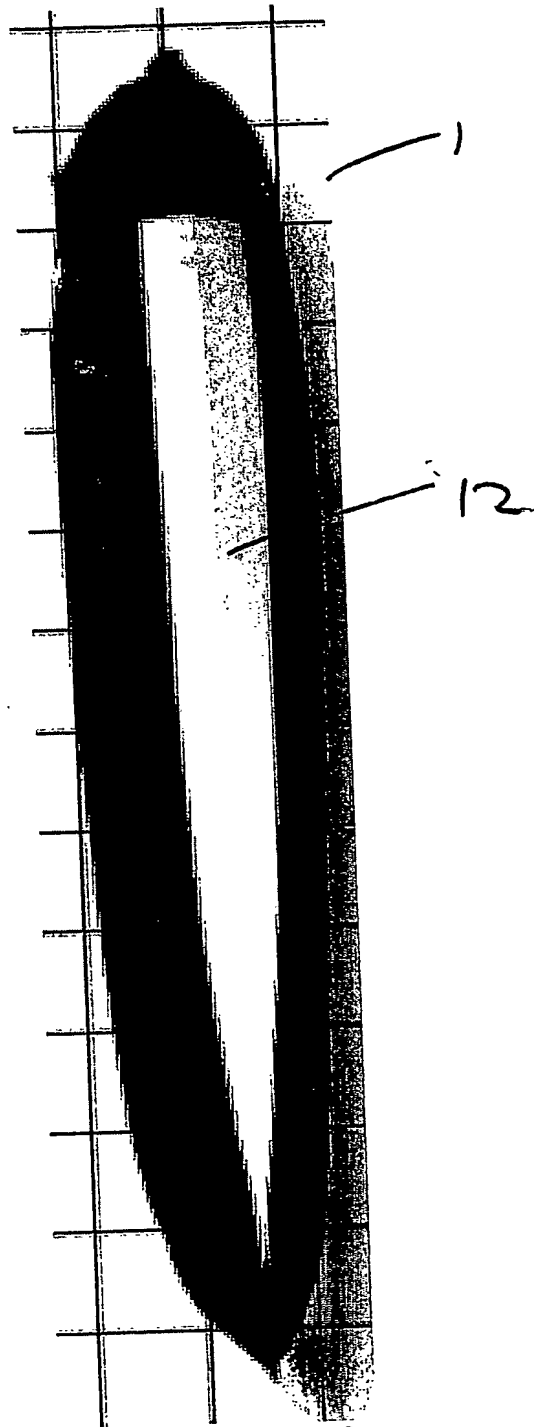


Figure 8